

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

**Claim 1 (Cancelled)**

**Claim 2 (Previously Presented):** The method of Claim 5, wherein the mesenchymal stem cells are autologous to the hematopoietic progenitor cells.

**Claim 3 (Previously Presented):** The method of Claim 5, wherein the mesenchymal stem cells are allogeneic to the hematopoietic progenitor cells.

**Claim 4 (Previously Presented):** The method of Claim 5 further comprising separating the transformed human progenitor cells from the mesenchymal stem cells.

**Claim 5 (Currently amended):** A method for transforming hematopoietic progenitor cells to express a protein, comprising co-culturing human hematopoietic progenitor cells with a homogenous population of human mesenchymal stem cells that have been isolated, purified and then culturally expanded from human mesoderm tissue, and transforming the human hematopoietic progenitor cells with a polynucleotide comprising exogenous genetic material encoding a protein in the

presence of the isolated, purified, and culturally expanded human mesenchymal stem cells, wherein said protein is expressed.

**Claim 6 (Canceled):**

**Claim 7 (New):** The method of claim 5, the homogenous population of mesenchymal stem cells uniformly expressing SH2, SH3, and SH4 and lacking surface markers for T and B lymphocytes, macrophages, and endothelial cells.